

Am



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/291,387	04/14/1999	CHANG-HOI GU	678-256-(P87	2044

7590 03/30/2004

PAUL J FARRELL ESQ
DILWORTH & BARRESE
333 EARLE OVINGTON BOULEVARD
UNIONDALE, NY 11553

EXAMINER

CHOW, CHARLES CHIANG

ART UNIT	PAPER NUMBER
----------	--------------

2685

18

DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/291,387

Applicant(s)

GUI ET AL.

Examiner

Charles Chow

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2685

**Office Action for
Applicant's Amendment
(Jan./12/2004)**

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 4-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Needham et al. (US 5,517,507) in view of Ohta (US 5,878,277).

Regarding **claim 1**, Needham et al. teaches, a method of transmitting use data (user data message 201, 205, front figure, abstract) on a reverse common channel (the data message can be either the reverse or forward dedicated channel, such as the data messages 200 sent from base station to communication units 103 to 109, or may be sourced by a communication unit, col. 3, lines 46-48). Needham assumes the transmitting device can be the communication unit, and the receiving device could be the base station for the reverse dedicated channel (col. 3, lines 62-65) to provide the acceptable quality service using the notification via the energy-burst response (203 to 207) for the retransmission (title, front figure, abstract, Fig. 1 to Fig. 5-4).

Needham teaches the different size message by dividing user data into a plurality of segmented messages for user longer data into N frames, such as, (a) the frames 501 to 509 in col. 6, lines 40-48; (b) the data messages transmitted in multiple contiguous frames in col. 7,

Art Unit: 2685

lines 49; (c) the transmitting a second data message in a second time window (col. 8, lines 52-55).

Needham discloses the transmitting of the segmented messages of consecutive frames on the (multiple continuously Nth frames, in above) on the reverse common channel (from communication unit to base station).

Needham teaches the determining whether a base station receives each of the segmented messages from (a) the notification of acknowledgement ACK to determining the whether received of each frame, and NACK for the response for retransmission (col. 1, lines 23-30); (b) the energy-burst response for the negative acknowledgement NACK to request for retransmission (col. 5, lines 51-64); (c) the indication of the energy burst for unacceptable quality (col. 8, line 25-29).

Needham does not clearly teach the designated reverse common channel to the reverse dedicated channel for the transmitting.

Ohta teaches the central station in communication with terminal stations (abstract) and each uplink and downlink having at least two types of communication channels, one of which is the dedicated communication channels and the other of which is common communication channel (col. 17, line 62 to col. 18, lines 11). The control unit selects one from the dedicated channels and the common channels in response to a communication request from a terminal (abstract). Ohta teaches the system is a Cdma system as shown in col. 16, lines 26-42. Ohta teaches transmitting of variety of information (col. 6, lines 35-43) and efficient, low cost quality communication (col. 7, lines 8-15). Therefore, it would have been obvious to one of

Art Unit: 2685

ordinary skill in the art at the time of invention to modify Needham above, and to include Ohta's dedicated common channel for efficient low cost transmission of variety information, such that the system could be improved transmission of larger amount messages efficiently.

Regarding **claim 4**, Needham has discloses the receiving of the response from base station indicating reception of each segmented message (col. 8, lines 25-30, the receiving of acknowledgement for indicating reception of each frame, and providing the negatively-acknowledgement-energy burst, when received frames are in errors).

Regarding **claim 5**, Needham has disclosed the response message indicating reception of a particular segment (the energy bust response; col. 7, lines 65-67, the retransmitting only the particular messages which are not adequately received); Needham shows the sequence number above (referencing parameter for corresponding-position of the fragments). the NACK (col. 5, line 51-64). the retransmit only the particular message not adequately received (col. 7, lines 65-76).

Regarding **claim 6**, Needham teaches the receiving a response message NACK indicating a failed reception of particular segmented message and retransmit the particular message (see col. 5, lines 51-64; col. 7, lines 65-76).

Regarding **claim 7**, Needham teaches the retransmission of particular message due to receiving of the NACK message indicating a failed reception of the particular message (see col. 5, lines 51-64; col. 7, lines 65-76).

Regarding **claim 8**, Needham has shown above the retransmitting of the particular frames not adequately received.

Art Unit: 2685

Regarding **claim 9**, Needham has shown above the whether a response indicating reception of retransmission (col. 5, lines 51-64, the as long as the negatively responded, again, for the retransmission).

Regarding **claim 10**, Needham has shown above the predetermined time period (predetermined time window, in abstract, col. 5, line 32, col. 5, line 60, for the energy-burst responses 203, 206, 207, for the retransmission; the burst-energy response in time-window for each frame, col. 5, lines 29-36).

Regarding **claim 11**, Needham has shown above the response for last Nth frame, and burst-energy response in time-window for each frame (above in claim 10), and including the last frame having the burst-energy immediately after the last frame (col. 6, lines 39-45).

Regarding **claim 12**, Needham has shown above the predetermined response time period, the response indicating reception of the last segment.

Regarding **claim 13**, Needham has shown above the retransmitting of the last frame (the last Nth frame); the response for the last segment; the not received (the energy-burst NACK retransmission); the predetermined time period (proper predetermined time window).

Regarding **claim 14**, Needham has shown above the base station transmitting a succeeding segment message base on the received response (energy-burst for each frame) indicating the reception of the last segment.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Needham in view of Ohta, as applied to claim 1 above, and further in view of Honkasalo et al. (US 5,995,496).

Regarding **claim 2**, Honkasalo et al. (also as Honkasalo in below) teaches the power

Art Unit: 2685

controlled channel for packet data transfer (title, claim 5, col. 12, lines 56-63, the base station transmits the feedback-acknowledgement to adjust/control the transmission power of the terminal, to response the quality of the received data). Honkasalo teaches the channel power control for transferring of quality data in the system for improving the data transferring error due to the adjusting of the channel power to compensate the signal fading in the transmission link (col. 3, lines 1-5). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Needhan above, and to include Honkasalo's closed loop acknowledgement for controlling the channel power, such that the quality of the data transmission could be improved by reducing the transmission error.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Needham et al. in view of Ohta, Honkasalo, and further in view of Ayabe et al. (US 6,108,530).

In the above, it does not clearly teach the sequence number, and indicating presence or absence of segments.

Regarding **claim 3**, Ayabe et al. (Ayabe) teaches, a system for transmitting the divided-fragmented displayable message in between the base station (110-1, 110-3) and short-message entity (104, 105; col. 4, lines 34-47, col. 4, lines 48-60, uplink and downlink) as shown in front figure/abstract. The fragmented-data packages are separately transmitted including a sequence number (reference-parameter indicating corresponding-position of the fragment abstract) to indicate the presence/absence in the succeeding frame (following fragment). The including of the referencing position information in the fragmented messages

Art Unit: 2685

is such an apparent, essential, accurate, efficient, method of transmitting long-divided fragmented data to avoid the puzzle during re-assembling of the received data-fragments. Besides, Ayabe teaches the assembling, reconstructing, of the received fragments (col. 2, lines 51-67); the marks for ready for reassembly (col. 7, lines 28-29); the inserting of any fragments received which is out of order (col. 9, lines 20-22). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Needham above, and to include Ayabe's referencing parameter to indicate the corresponding position of the fragments, such that message could be efficiently transferred.

4. Claims 15, 17-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Needham et al. in view of Ohta, and further in view of Ayabe et al.

Regarding **claim 15**, Needham (in above) has shown the mobile station for transmitting a plurality of segmented messages for user longer data into N frames, such as, (a) the frames 501 to 509 (see in col. 6, lines 40-48); (b) the data messages transmitted in multiple contiguous frames (col. 7, lines 49); (c) the transmitting a second data message in a second time window (col. 8, lines 52-55), and Ohta taught in claim 1 the designated reverse common channel. However, it does not clearly indicate the checking a count of the more flag field, although it has shown above the flag field (the referencing position parameter for the fragments in the user data field for the indicating of more frames in the incoming message). Ayabe teaches the CRC in for the guarantee of the short message delivery (col. 5, line 35-37). Ayabe teaches the checking a count of the more flag field (the referencing parameter

Art Unit: 2685

indicating the total size the message, abstract; and the reference position to indicate the identity in col. 7, lines 21-31, col. 10, lines 60-63, col. 6, lines 54-67, Fig. 4A/4B, steps 410, 420, 422, col. 2, lined 43-50) for the more flag field. Ayabe also teaches the assembling, reconstructing, of the received fragments (in col. 2, lines 51-67), and the marks for reassembly (col. 7, lines 28-29). Ayabe further teaches the inserting of any fragments received which is out of order (col. 9, lines 20-22). Ayabe provides the method for using the referencing-position, the CRC, and the total size-count, which are obviously, essentially, the good techniques for the transmitting/assembling of the fragmented data because the system could easily, efficiently transmits the long fragmented data to avoid the reassembly problem, using the referencing position, CRC, total size count. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Needham above, and to include Ayabe's total size-count, such that the missing fragment could be efficiently located. Regarding **claim 17**, Needham has shown above in claim 4 above, for the claimed for the response from either base station or mobile station for sending response to indicate the reception.

Regarding **claim 18**, Needham and Ayabe has shown above in claims 3, 4, for the claimed features for a response indicating reception; the sequence referencing position parameter.

Regarding **claim 19**, Needham has shown above in claim 8 for the claimed features for the predetermined time period (window) for not receiving (not adequately received, energy-burst NACK-retransmission request).

Regarding **claim 20**, Needham has shown above in claim 9 for the claimed features for the mobile station response indicating retransmission (energy-burst, NACK-retransmission).

Art Unit: 2685

Regarding **claim 21**, Needham has shown above in claim 11 for the claimed features for a response for receiving last message (Needham's col. 6, line 43-45, above).

Regarding **claim 22**, Needham has shown above in claims 1, 5 above for the error, unacceptable quality, and the request for retransmission.

Regarding **claim 23**, Ayabe has shown above in claim 3 for the claimed features for the completed continuously checking as shown above based upon the referencing position parameter, and the total size count parameters. Ayabe has shown above for the assembling, reconstructing, of the received fragments (col. 2, lines 51-67); the marks for ready for reassembly (col. 7, lines 28-29); the inserting of any fragments received which is out of order (col. 9, lines 20-22).

5. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Needham et al. in view of Ohta, Ayabe et al., and further in view of Honkasalo.

Regarding **claim 16**, Honkasalo teaches the power controlled channel, the power controlled channel for packet data transfer (title, claim 5, col. 12, lines 56-63, the base station transmits the feedback-acknowledgement to adjust/control the transmission power of the terminal, to response the quality of the received data). Honkasalo teaches the channel power control for transferring of quality data in the system for improving the data transferring error due to the adjusting of the channel power to compensate the signal fading in the transmission link (col. 3, lines 1-5). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Needhan above, and to include Honkasalo's closed loop

Art Unit: 2685

acknowledgement for controlling the channel power, such that the quality of the data transmission could be improved by reducing the transmission error.

Response to Arguments

6. Applicant's arguments filed 1/12/2004 have been fully considered but they are not persuasive.

Regarding applicant's argument for the no teachings for the designating the reverse common channel to the reverse dedicated channel, transmitting user data on a reverse common channel with a reverse dedicated channel "released" in claim 1, Ohta does teach the central station has a control unit for selecting one channel from dedicated channels and common channels, in response to a communication request from a terminal (abstract, col. 7, lines 38-42). Regarding a reverse dedicated channel "released" in claim 1, the releasing a reverse dedicate channel is to meant to assign, to authorize to use, a reverse dedicated channel to user's mobile station for user data transmitting, which can not be utilized by other user since the channel is released and dedicated to that mobile station, and Ohta does teach assigning a reverse dedicated channel for terminal station to utilize (abstract) by selecting a channel from the dedicated and common communication channels, for releasing that assigned channel to user terminal station.

In view of the above disclosures, claims 1-23 are remaining in the rejection manner.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS

Art Unit: 2685

of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Chow whose telephone number is (703)-306-5615.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Hunter, can be reached at (703)-308-6732.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Charles Chow C.C.

March 9, 2004.


EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600